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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,464

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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EXAMINER

DUDEK JR, EDWARD J

ART UNIT

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2186

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,464	Applicant(s) BLACQUIERE ET AL.	
	Examiner Edward J. Dudek	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-11 is/are rejected.
- 7) ☒ Claim(s) 5,6,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the amendment filed on 12 May 2008 in application #10/561464.

Claims 1-13 are pending and have been presented for examination.

Response to Arguments

Applicant's arguments, see page 17, filed 12 May 2008, with respect to the drawings have been fully considered and are persuasive. The objection to the drawings has been withdrawn.

Applicant's arguments, see page 17, filed 12 May 2008, with respect to the specification have been fully considered and are persuasive. The objection to the specification has been withdrawn.

Applicant's arguments, see page 17, filed 12 May 2008, with respect to claims 1 and 10 have been fully considered and are persuasive. The rejection of claims 1 and 10 under 35 U.S.C. § 112, second paragraph has been withdrawn.

Applicant's arguments, see page 18, filed 12 May 2008, with respect to claim 11 have been fully considered and are persuasive. The rejection of claim 11 under 35 U.S.C. § 101 has been withdrawn.

Applicant's arguments filed 12 May 2008 with respect to claims 1-4, 7, and 9-11 have been fully considered but they are not persuasive.

Applicant argues:

Further, column 10, lines 16-18 also specifically recites that allocation "of spare areas can be allocated to accommodate these needs at format time when this invention is used." (Emphasis added) In

addition, column 10, lines 16-18 also specifically recites that the allocation of the data area to user data and spare areas is done only at format time, although this allocation may be altered again upon a subsequent format. (Emphasis added) Accordingly, such allocation of spare areas in Sims is NOT dynamic, but rather is done at format time.

Gotoh is directed to recording/reproducing method and device suitable for recording/reproducing audio/visual (AV) data. As shown in FIG 1, step A3 determines whether the recording is real time, and if addresses are read out with error in a sector, then an Error Correcting Code (ECC) block including the sector (with the error) is skipped, and the data is recorded from the leading sector in the following ECC block, as shown in steps A4 to A6, and recited on column 9, lines 17-21. It is respectfully submitted that Sims, Gotoh, and combination thereof, do not teach or suggest the present invention as recited in independent claim 1, and similarly recited in independent claim 10 which, amongst other patentable elements, recites (illustrative emphasis provided):

defect management area reassignment means for dynamically changing said assignment information in dependence of the data type recorded on the record carrier.

These features are nowhere taught or suggested in Sims and Gotoh, alone or in combination. At best, any such combination discloses to perform allocations at format time, and to skip a defective sector for recording on the following block.

The Examiner respectfully disagrees. Sims already discloses assigning the physical sectors on the storage medium to either be used for user data or for defect management areas. The pattern in which the sectors are allocated to either area is definable by the user, and can also be changed upon formatting the medium to a different distribution of user data and defect management areas. This requires the user to determine what type of data they wish to store on the medium so that the medium can be formatted in the optimal configuration for the type of data that is stored on the medium. Gotoh discloses a system that can receive data and record the data.

However, the system has the ability to determine what type of data is being stored, and based on that is able to make various adjustments. The type of data that is stored determines what the performance needs will be for the storage device. Therefore, the combination of both Sims and Gotoh discloses a slightly modified system of Sims, where now the system, and not the user, can determine what data is being stored on the storage medium, and before the data is stored the storage medium is formatted to the optimal configuration for the type of data. If the user determines that a different type of data is going to be stored on the medium, the user can have the medium formatted, and when the new data is written the system would again determine the data type and configure the medium to the optimal format. The assignment of user areas and defect areas are determined dynamically at format time, and can be different each time. Therefore the assignment information is changed dynamically each time the disk is formatted to conform to the type of data being stored on the storage medium.

The rejection is maintained as repeated below.

Specification

The amendments to the specification were received on 12 May 2008, and are acceptable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sims (**U.S. Patent #7,058,852**) in view of Gotoh (**U.S. Patent #6,314,235**).

As per claim 1: Sims discloses a device for recording information in blocks having logical addresses on a record carrier, the device comprising: recording means for recording marks in a track on the record carrier representing the information (**see figure 3, element 351**), and control means for controlling the recording by locating each block at a physical address in the track (**see figure 3, element 350 and column 17 line 62 thru column 18 line 13**), the control means comprising addressing means (31) for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information (**see column 17 line 62 thru column 18 line 13**), defect management means for detecting defects and maintaining the defect management information (**see column 9, lines 7-12**), the defect management information including assignment information indicative of assignment of physical addresses in first parts of the track to at least one user data area, assignment of physical addresses in second parts of the track to defect management areas and assignment of the defect management information to the defect management areas (**see column 13, lines 47-62**), and the defect management information including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect

management area **(see column 11, lines 28-33)**, and defect management area reassignment means for dynamically changing said assignment information in dependence of the data type recorded on the record carrier **(see column 10 line 58 thru column 11 line 28)**. Sims does not disclose data type detection means for detecting a data type of recorded information, including streaming type for real-time data, or non-streaming type for random data. Gotoh discloses a system that is capable of determining the type of data that is being recorded, and determining if the data is AV data or computer data **(see column 9, lines 1-16)**. Depending on the type of data being stored on the storage medium, the way the defective blocks are allocated are changed so that the performance requirements for real-time or streaming data can be satisfied **(see column 2, lines 1-16)**. The system disclosed by Sims enables user to set the type of data being stored on the medium. It would have been obvious to a person having ordinary skill in the art to which said subject matter pertains to have modified the system disclosed by Sims, by adding the functionality of having the device detect the type of data being stored on the storage medium, since the type of data stored will determine the performance required, as taught by Gotoh.

As per claim 2: wherein the defect management area reassignment means are for changing said assignment information from a distributed layout having the first parts and the second parts of the track alternately arranged to a contiguous layout having a substantially uninterrupted user data area in dependence of the data type being streaming, or vice versa **(see column 10 line 58 thru column 11 line 28)**.

As per claim 3: wherein the defect management area reassignment means are for changing said assignment information for a first physical address range to the distributed layout and for a second physical address range to the contiguous layout, the first physical address range containing information of the non-streaming type and the second physical address range containing information of the streaming type **(see column 10 line 58 thru column 11 line 28 and column 12, lines 30-37).**

As per claim 4: wherein the defect management area reassignment means are for assigning a defect to a first defect management area for information of the streaming type, or to a second defect management area for information of the non-streaming type **(see column 10 line 58 thru column 11 line 28, since each area that is defined has a user area and a spare area, it is inherent that the defect is remapped to that spare area that is associated with the user data area).**

As per claim 7: wherein the defect management area reassignment means are changing the assigning of physical address to the first defect management area for information of the streaming type, or to the second defect management area for information of the non-streaming type in dependence of information recorded or defects detected on the record carrier **(see column 10 line 58 thru column 11 line 28, since each area that is defined has a user area and a spare area, it is inherent that the defect is remapped to that spare area that is associated with the user data area).**

As per claim 9: wherein the data type detection means are for detecting the data type by monitoring commands for recording or retrieving information, by retrieving

record carrier information indicative of the data type, by detecting a data type from the data structure of the recorded information, or by detecting file system information, or by communicating with a host device **(see Gotoh column 9, lines 1-16)**.

As per claims 10 and 11: Sims discloses a method of defect management for recording of information in blocks having logical addresses on a record carrier, the method comprising the acts of: locating each block at a physical address in the track **(see column 7, lines 30-35)**, translating the logical addresses into the physical addresses and vice versa in dependence of defect management information **(see column 17 line 62 thru column 18 line 13)**, detecting defects and maintaining the defect management information **(see column 9, lines 7-12)**, the defect management information including assignment information indicative of assignment of physical addresses in first parts of the track to at least one user data area, assignment of physical addresses in second parts of the track to defect management areas and assignment of the defect management information to the defect management areas **(see column 13, lines 47-62)**, and the defect management information including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area **(see column 11, lines 28-33)**, dynamically changing said assignment information in dependence of the data type recorded on the record carrier **(see column 10 line 58 thru column 11 line 28)**. Sims does not disclose data type detection means for detecting a data type of recorded information, including streaming

type for real-time data, or non-streaming type for random data. Gotoh discloses a system that is capable of determining the type of data that is being recorded, and determining if the data is AV data or computer data (**see column 9, lines 1-16**). Depending on the type of data being stored on the storage medium, the way the defective blocks are allocated are changed so that the performance requirements for real-time or streaming data can be satisfied (**see column 2, lines 1-16**). The system disclosed by Sims enables user to set the type of data being stored on the medium. It would have been obvious to a person having ordinary skill in the art to which said subject matter pertains to have modified the system disclosed by Sims, by adding the functionality of having the device detect the type of data being stored on the storage medium, since the type of data stored will determine the performance required, as taught by Gotoh.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sims (**U.S. Patent #7,058,852**) and Gotoh (**U.S. Patent #6,314,235**) as applied to claims 1-4, 7, and 9-11 above, and further in view of Gotoh (**U.S. Patent Application Publication #2003/0191980**).

As per claim 8: the combination of Sims and Gotoh disclose all the limitations of claim 1 as discussed above. The combination fails to disclose the defect management area reassignment means are for, in the event that the translation of logical address to physical address of previously recorded blocks is affected by said reassignment, moving the previously recorded blocks to a different physical address that after the

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reassignment corresponds to the logical address, and/or by adapting file management information by amending the logical addresses of the affected of previously recoded blocks. Gotoh discloses defect management whereby another spare area for remapping defective blocks is needed (**see [0215]**). The system determines if there is currently data stored in the area where the new spare area is going to be located, and if so the data is moved to another area of the disk so that the data is not lost and the spare area can be allocated in the most beneficial spot (**see [0219]-[0220]**). It would have been obvious to a person having ordinary skill in the art to which said subject matter pertains to have moved previously recorded blocks in the area where the new spare area is going to be located to another area on the medium, in the system disclosed by Sims and Gotoh, to allow the spare area to be located in the most beneficial area, as taught by Gotoh.

Allowable Subject Matter

Claims 5-6 and 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward J. Dudek whose telephone number is 571-270-1030. The examiner can normally be reached on Mon thru Thur 7:30-5:00pm Sec. Fri 7:30-4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matt Kim/
Supervisory Patent Examiner, Art
Unit 2186

/E. J. D./
Examiner, Art Unit 2186
July 17, 2008